

CHALK CRAYONS

A. INTRODUCTION

Chalk Crayons are widely used in schools, colleges and other educational institutions. Chalk Crayons are round shaped sticks of chalks, either in white or in colours. They are used for writing on black-boards and on colour-boards.

B. PRODUCT USES

The specification for chalk crayons are IS : 2694-1963 moulded white school chalks and IS : 4222-14967 moulded coloured chalks. The product is used in all schools and colleges and educational institutions. They are also used in industries, training institutions of banks and other institutions.

C. MARKET POTENTIAL

The number of school going children is increasing year after year. The students enrolled in primary levels are increasing with spread of literacy and Govt. regulation for making primary education compulsory. Another reason for increasing demand of chalk crayons is increasing popularity of adult education throughout India.

D. TECHNICAL ASPECTS

1. Installed capacity

The installed capacity of the unit is 96000 boxes (100 pieces per box) of chalks per annum. The daily capacity is 320 boxes.

2. Plant and Machinery

| | Qty. | [Rs.] |
|---|--------|--------------|
| Aluminium moulds 90 cavities (@ Rs.5500 each) | 8 nos. | 44000 |
| Work table, Balance, Wooden trays | 1set. | 26000 |
| Total | | 70000 |

3. Manufacturing Process

Cleaning of moulds applying lubricant consisting of Kerosene and Groundnut oil in ratio 4 : 1 - setting moulds in wooden frames – mixing of plaster of paris and china clay in a enamel bowl along with other additives like whitening agents / colouring agents – adding water in required quantity slowly till a homogenous mixture is formed – pouring mixture into moulds – allowing for settling – removing excess materials from moulds – slowly removing chalk sticks from moulds – placing in wooden trays for initial drying and then under sunlight. Testing for strength and smoothness in writing and packing in wooden boxes.

4. Raw Materials

| | Rate/MT. | Requirement | Value p.m. |
|---|-----------------|--------------------|-------------------|
| Plaster of paris | 2000 | 4 MT | 8000 |
| China Clay, Colour, lubricants | | | 3000 |
| Card board boxes (8000boxes @Rs.0.50 per box) | | | 4000 |
| Total | | | 15000 |
| Raw material cost per box | | | Rs.1.88 /- |

5. Land & Building

300 sqft. of covered area is required which could be taken on rent. Rent Rs.2400. Advance Rs.24,000.

6. Utilities

Power: Electricity is not required for process. A single phase load is sufficient for lighting.

Water: Water requirement per day is about 500 litres.

Man Power:

| Category | Nos. | Monthly | Total |
|-----------------------------------|------|---------|--------------|
| Manager | 1 | 5000 | 5000 |
| Semi Skilled workers | 1 | 3000 | 3000 |
| Unskilled worker | 1 | 2000 | 2000 |
| | | | 10000 |
| Add: 20% benefits | | | 2000 |
| Total | | | 12000 |
| Total salary per annum (Rs.lakhs) | | | Rs.1.44 lakh |

7. Implementation Schedule

The project can be implemented within one month.

8. ASSUMPTIONS

- Installed capacity is 96000 boxes of chalk crayons per annum.
- First year Capacity utilisation is 60%. This is increased to 70% and 80% in subsequent years.
- The selling price assumed is Rs.6.00 per box. The market price is higher than this.
- The raw material cost is Rs.1.88 per box.
- Power charge is only for lighting.
- Wages & Salaries is Rs.1.44 lakh per annum.
- Repairs & Maintenance is Rs.500 per month.

- Depreciation is calculated on WDV method.
- Selling, General & Adm. Expenses is calculated at Rs.5000 per month.
- Interest on Term Loan is calculated at 12% per annum
- Working capital is proposed to be met out of own finance.
- Income tax is provided at 33.99% on taxable income.

LIST OF MACHINERY SUPPLIERS

1. Maneklal and Sons (Exports), 237/239 Perin Nariman Street, Fort , Mumabi-1
2. Rainbow Candle works, No.20 A, Ponnuswamy Vudyar Street, Choolaimedu,
Chennai 600 094

LIST OF RAW MATERIAL SUPPLIERS

1. Raja Mining Works, Ariyallore, Trichy.
2. Sri Balamurugan Group of Companies, 31-A, Emperor Street, Tuticorin-628 001

FINANCIAL ASPECTS

1. COST OF PROJECT

| | Rs.lakhs |
|------------------------|-------------|
| Building (Advance) | 0.24 |
| Plant & Machinery | 0.70 |
| Other Misc. assets | 0.00 |
| Pre-Operative expenses | 0.10 |
| Margin for WC | 0.14 |
| Total | 1.18 |

2. MEANS OF FINANCE

| | |
|--------------|-------------|
| Capital | 0.65 |
| Term Loan | 0.53 |
| Total | 1.18 |

3. COST OF PRODUCTION & PROFITABILITY STATEMENTS

| Years | 1 | 2 | 3 |
|------------------------------------|-----------------|-------------|-------------|
| Installed Capacity (No. of boxes) | 96000 | 96000 | 96000 |
| Utilisation | 60% | 70% | 80% |
| Production/Sales (No. of boxes) | 57600 | 67200 | 76800 |
| Selling Price | Rs.6.00 per box | | |
| Sales Value (Rs.lakhs) | 3.46 | 4.03 | 4.61 |
| Raw Materials | 1.08 | 1.26 | 1.44 |
| Power | 0.06 | 0.06 | 0.06 |
| Wages & Salaries | 1.44 | 1.51 | 1.59 |
| Repairs & Maintenance | 0.06 | 0.07 | 0.08 |
| Depreciation | 0.11 | 0.09 | 0.08 |
| Cost of Production | 2.75 | 2.99 | 3.25 |
| Selling, Admin, & General expenses | 0.60 | 0.63 | 0.66 |
| Interest on Term | | | |
| Loan | 0.06 | 0.06 | 0.04 |
| Interest on Working Capital | 0.00 | 0.00 | 0.00 |
| Total | 3.41 | 3.68 | 3.95 |
| Profit Before Tax | 0.05 | 0.35 | 0.66 |
| Provision for tax | 0.00 | 0.00 | 0.00 |

| | | | |
|-------------------|-------------|-------------|-------------|
| Profit After Tax | 0.05 | 0.35 | 0.66 |
| Add: Depreciation | 0.11 | 0.09 | 0.08 |
| Cash Accruals | 0.16 | 0.44 | 0.74 |

4. WORKING CAPITAL:

| | Months | Values | % | Margin | Bank |
|---------------|--------------|--------|------|--------|---------|
| | Consumptions | | | Amount | Finance |
| Raw Materials | 1.00 | 0.09 | 100% | 0.09 | 0.00 |
| Expenses | 1.00 | 0.05 | 100% | 0.05 | 0.00 |
| | | 0.14 | | 0.14 | 0.00 |

6. PROFITABILITY RATIOS BASED ON 80% UTILISATION

| | | | |
|---------------------------------------|---|-------------|------|
| <u>Profit after Tax</u> | = | <u>0.66</u> | 14% |
| Sales | | 4.61 | |
| <u>Profit before Interest and Tax</u> | | <u>0.70</u> | |
| Total | = | | 59% |
| Investment | | 1.18 | |
| <u>Profit after Tax</u> | | <u>0.66</u> | 102% |
| Promoters Capital | | 0.65 | |

7. BREAK EVEN LEVEL

| | | | |
|---------------------------|-----------------|---|-----------------------|
| Fixed Cost (FC): | Rs.lakhs | | |
| Wages & Salaries | 1.59 | | |
| Repairs & Maintenance | 0.08 | | |
| Depreciation | 0.08 | | |
| Admin. & General expenses | 0.66 | | |
| Interest on TL | 0.04 | | |
| | 2.45 | | |
| Profit Before Tax (P) | 0.66 | | |
| BEL | FC x 100 | = | <u>2.45</u> |
| = | FC +P | = | 3.11 |
| | | | 63% |
| | | x | of installed capacity |
| | | | 80 |
| | | | 100 |
| | | | x |
| | | | 100 |